Research Article

Revisiting Perceived Risk and Trust in E-tourism Context: Toward an Extended Technology Acceptance Model

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Abstract

Online presence is becoming important for tourism professionals. They are intensifying their efforts to market their products and services; in particular, they are trying to diversify their marketing policy. There is, however, some reluctance on the part of consumers to use the Internet to book their tourism products, mainly due to the risk they perceive and the lack of confidence they feel. In this paper, we tried to study the impact of these two variables on online booking through a survey with 194 Tunisian respondents. The main result is that perceived risk negatively affects their booking intention. However, the relationship between trust and intention is found significant and positive. In the final section of this paper, we discussed implications of this research and limitations.

Keywords: Perceived risk, trust, online booking, tourism products

Introduction

To succeed in electronic commerce, we should be trustful. However, operations' perceived risk is amplified in e-commerce, as the Internet does not allow consumers to relate directly to the proposed product, as is the case in traditional commerce (Tan and Sutherland, 2004). According to Babin and Galan (1998), there is too much information on the web. Most of the sites to which users have access are sites built by people whose motivations or ethical values are unknown. Consumers often act on the basis of information that is far from complete and far from perfect. Consequently, they are often faced with at least some degree of risk or uncertainty in their purchasing decisions (Ferrin, Kim and Rao, 2008).

The lack of trust has been identified as the main obstacles to individuals' engaging in e-commerce, particularly for operations in which their personal and financial information is available to traders across the Internet (Emurian and Wang, 2005). David and Straub (2003) stated that there are differences between e-commerce and traditional commerce such as the lack of the social presence of natural services, which may hinder the development of consumer confidence in online sellers.
Success in the field of online business depends largely on the relationship between vendors

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and consumers. This relationship is based on trust, especially since the online B2C environment lacks the advantage of physical presence (Kolsaker and Payne, 2002). The Internet is characterized by the absence of physical assistance (human presence); hence, buying online is risky. Product verification before the act of purchase is not possible, and the security of personal and financial information is uncertain. These factors affect people's trust. Indeed, confidence is established at two levels: trust between consumers and the online store, namely interpersonal trust, and the confidence of consumers in the Internet, namely institutional trust (Grabner- Kräuter and Kaluscha, 2003; Dellaert, De Ruyter, and there Monsuwe Perea, 2004).

The level of security and privacy must be estimated as high in the experience of online shopping; otherwise, any transaction will be considered highly risky (Dellaert, De Ruyter and there Monsuwe Perea, 2004). Hence, the lack of trust is a barrier to buying online (Grabner-Kräuter and Kaluscha, 2003).

The objective of this study is to study consumers' adoption of the Internet and more specifically, consumers' intention to book tourism products online. We used an extended Technology Acceptance Model (TAM). In the first part, we introduce a brief review of the literature relating to our research model. Thereafter, we test this model to validate our assumptions. In the last section, we discuss our findings and propose managerial and theoretical contributions while pointing out the limitations of the study.

Literature Review and Hypotheses Development

TAM and E-commerce

Among the models most commonly used to explain consumers' adoption behavior, the TAM seems to be one of the most dominant ones in the literature to help account for the process of users' acceptance of high technology (Cheng, Lou and Sheen, 2006). This model highlights the causal relationship between shared beliefs and attitudes and other behaviors. The TAM was developed by Davis in 1989. Thereafter, the use of this

model as a basis for explaining and predicting the use of systems and/or technologies spread. Several researchers have adopted the TAM in various contexts of study, especially in the online context (Kim and Moon, 2001; Koufaris, 2002; Shih, 2004 and 2004 b; Vijayasarathy, 2004; Hwang, Lin, Wang, 2010) to explain behavioral intention to use the technology (Davis, Bagozzi and Warshaw, 1989; Matheison, 1991, Davis and Venkatesh, 1996 & 2000; Collar and Legris, 2003).

The TAM model is based on the Theory of Reasoned Action (TRA) that is developed by Ajzen and Fishbein in 1975 and 1980, whose theoretical foundations are in the field of social psychology. The TRA states that behavior is affected by behavioral intention, which, in turn, is determined jointly by the attitude of the person as well as subjective norms (Davis, Bagozzi and Warshaw, 1989). The TRA predicts the intentions and behaviors of consumers. However, this theory provides a relatively simple basis for determining where and how to target attempts to change the consumer behavior (Sheppard, Hartwick and Warshaw, 1988).

Based on literature, the TAM model is considered the most robust and widely used model for explaining and predicting consumer's behavior and user information and/or information technology (IT). This model admits two fundamental determinants of acceptance of the use of IT (Kim and Moon, 2001): perceived usefulness and perceived ease of use. These two constructs were defined by Davis (1989) as follow:

- Perceived usefulness is "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989, p 320).

- Perceived ease of use is "the extent to which a person believes that using a particular system would be free of effort" (Davis, 1989, p 320).

Within TAM model, the use of computers is the consequence of behavioral intention to use them. This intention is the outcome of the association of attitudes towards the use of the

system and normative beliefs (Davis, Bagozzi and Warshaw, 1989; Mtheison, 1991 Shih, 2004b; Lin, 2007; Hwang, Lin and Wang, 2010).

We assumed that the relationships between constructs of the TAM are the same even in e-tourism context. According to TAM model, attitude emerges from two beliefs: perceived usefulness and perceived ease of use (Davis, 1989; Davis, Bagozzi and Warshaw, 1989). Moreover, attitudes have a direct effect on behavioral intention (Matheison, 1991). Hence, we can suppose that:

H1: Perceived usefulness of tourism websites has a positive impact on the intention to book online.

H2: Perceived usefulness of tourism websites has a positive impact on the attitude towards booking tourism products online.

H3: Ease of use of tourism websites has a positive influence on the usefulness of these sites for online booking.

H4: ease of use of tourism websites has a positive influence on the attitude towards online booking.

H5: Ease of use of tourism websites has a positive influence on the intention to book online.

H6: Attitude towards booking tourism products online has a positive impact on the intention to book online.

Perceived Risk and Trust in E-tourism Context

Definitions of Trust and Perceived Risk

Trust is "consumer's subjective belief that the party or entity who sells will fulfill its transactional obligations" (Ferrin, Kim and Rao 2008, p 545); "It is the consumers' expectation that the electronics dealers will not exploit their vulnerability and will honor their commitments" (Chouk and Perrien, 2004, p 76).

Perceived risk has been widely considered in previous research as a moderator for online purchasing or the adoption of online services. Numerous definitions of this concept have been given. For instance, perceived risk is "the belief in a consumer about possible uncertain and negative results of the online transaction» (Ferrin, Kim and Rao, 2008, p 546) or "the degree to which individuals believe that, if they buy products or services via the Internet, they will suffer losses" (Lim, 2003, p 222). Featherman and Pavlou (2003) defined perceived risk as: "the potential loss of a desired result with the use of an online service" (Featherman and Pavlou, 2003, p 454).

Place of Trust and Perceived Risk in the Context of E-tourism

To improve information retrieval, it is important to develop a user-friendly interface and induce a sense of trust in the online advice sought from websites (Balmer, Denvir and Pleasence, 2011). Thus, the concept of trust is very important. On the one hand, tourists should be heavily involved in the search for information to buy tourism products and services despite the perceived risk. Consumers often look for ways to reduce the uncertainty associated with the purchase of a stay in an environment characterized by the scarcity of information (Sirakaya and Woodside, 2005). On the other hand, the non-delivery of ordered products, hacking credit card numbers, or misuse of personal data are examples of practices that explain why many consumers remain reluctant to use electronic commerce. Therefore, winning the trust of consumers is a major challenge for any site that wants to succeed (Chouk and Perrien, 2004, p 75). Internet growth has increased the popularity of online shopping. Nevertheless, many users keep away from this shopping mode because of concerns related mainly to the security and respect for privacy (Lian and Lin, 2008). Aldas-Manzano and Ruiz-Maféet Sanz Blas (2009) also found that the online sale of airline tickets is developing although many tourists show a reluctance to purchase them this way.

According to Liu and Teo (2007), online trust is fundamentally affecting a number of factors such as security and privacy. Same thing for Mc Cole, Ramsey and Williams (2010) who consider the internet as a risky tool for users

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without the presence of a reputable agent. Thus, it is important to establish trust between the company and consumers to reduce the risk associated with an online transaction. Cao et al. (2011) also argued that perceived risk is an inhibitor for online banking.

The Impact of Trust and Perceived Risk on the Constructs of the TAM

Trust has an impact on all constructs of the TAM. People's attitude towards the use of technology is influenced by perceived usefulness and perceived ease of use, too. Also attitude is affected by the perception of trust online. The determinants of trust have a dual effect on intention: a direct effect and an indirect one via another attitude. Trust has an important standing in the development of people's attitude and intention of doing business with online sellers (Palvia, 2009).

Chen and Wu (2005) found that trust is an excellent precedent of the behavioral intention to use, of the perception of behavioral control, and finally of subjective norms. In fact, the impact of trust on attitude is more significant than perceived usefulness and perceived ease of use. Similarly, another study found that trust in websites has an impact on the usefulness of these sites to make purchases online (Ha and Stoel, 2009). Ferrin, Kim and Rao (2008) showed that trust and perceived risk, when shopping online, shape the intention to purchase online and have a significant impact on decision to purchase online. These authors proposed a model that explains 34% of the variance of intention to purchase online. However, perceived risk decreases the intention to purchase online. This finding is confirmed by Hwang, Lin and Wang (2010) who exposed a significant but a negative relationship between perceived risk and online purchase intention. Similarly, Liu and Teo (2007) concluded that the perceived risk negatively influences the attitude towards the online seller and the willingness to purchase online.

Thus, trust increases the intention to book online and negatively affects the perception of risk. Yoon (2002) also found that trust positively and significantly affects the intention to purchase on websites. David and

Straub (2003) found that trust has a direct impact on willingness to buy online tourism services. Kim, Kim and Shin (2009) also argued that trust has a positive effect on the attitude regarding websites and the intention to use them, but indirectly via attitude. However, Koufaris (2002) reversed the significant relationship between trust and intention to revisit the websites selling books online. In sum, the relationship of trust with behavioral intention is positive, while that between perceived risk and intention is negative.

Chung, Kim and Lee (2010) focused on identifying the factors that influence trust and loyalty, and found that loyalty is considered as an intention to revisit a website or purchase. Therefore, loyalty is associated with behavioral intention. The results of their survey of 340 Internet users showed that confidence predicts loyalty, thus influencing the intention to purchase tourism products and services online. Featherman and Pavlou (2003) suggested that perceived risk has a strong inhibitory influence on perceived usefulness and intention to adopt online services.

Based on the review of the literature, we suggest the following two hypotheses:

H7: Trust positively affects the intention to book on tourism websites.

H8: Perceived risk negatively influences the intention to book on tourism websites.

Research Methodology

Operationalization of Constructs

To develop and validate our survey instrument (Kim and Moon, 2001), several measures were taken. First, key concepts were identified from the literature review. Then, the questionnaire thus developed was pre-tested in order to improve it and make it easier to assimilate by respondents. Finally, the empirical study was carried out. Our variables were measured by a 5-point Likert-type scale, and the survey was collected online. Table 1 shows the items used for each variable.

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Table 1: Survey variables

Concepts	Author	Items
Perceived usefulness	Alda´s-Manzano, Ruiz-Mafé and Sanz-Blas (2009)	Using Internet makes online booking easy for a tourism product. Using Internet makes booking a tourism product go faster. Using Internet would be useful for booking a tourism product Using Internet helps book a tourism product more efficiently
Perceived ease of use	Alda´s-Manzano, Ruiz-Mafé and Sanz-Blas (2009)	It is easy for me to learn to use the Internet to book a tourism product Using Internet would make it easy to book a tourism product Using Internet to book a tourism product does not require a lot of mental effort Using Internet to book a tourism product is easy following the instructions on the site involved
Attitude	Kim and Moon (2001)	The use of travel websites for booking is a (good / bad) idea The use of travel websites for booking is a (wise / foolish) idea The use of travel websites for booking is a (pleasant / unpleasant) idea The use of travel websites for booking is a (positive / negative) idea
Trust	Koufaris (2002)	Travel websites are trustworthy Travel websites provide reliable information Travel websites keep their promises and commitments I remember clearly the tourism website I use to reserve products The behavior of tourism websites meets my expectations regarding online booking
Perceived risk	Corbitt, Thanasan-kit et Yi (2003)	I believe that online booking is risky because tourism products and services may not meet my expectations. I believe that online booking is risky because the products and services may be of lower quality. I believe that online booking is risky because tourism products and services may be dangerous to use I believe that online booking is risky because tourism products and services may be available at a lower price elsewhere. I believe that online booking is risky because others may think of me otherwise I believe that online booking is risky because tourism products and services do not coincide with my own image and my self-concept. I believe that online booking is risky in terms of time because the products and reserved tourist services may not be delivered on time
Intention	Kim and Moon (2001)	I will book online tourism products in the future I will use travel websites in the future for online booking I highly recommend to others to book on travel websites

Analysis of the Validity and Reliability of the Survey

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The pre-test that we conducted with 34 Tunisian participants allowed us to assess the psychometric quality of the variables under study; reliability measures assessed the internal consistency and validity of the survey to check that the result would be the same whatever the method of measurement used. Table 2 shows that our scales were shown to be valid and reliable, with excellent scores of Cronbach's alpha.

Table 2: Testing the internal consistency of the constructs

Constructs	Alpha of Cronbach
Perceived usefulness	0.871
Perceived ease of use	0.876
Attitude	0.845
Trust	0.762
Perceived risk	0.715
Intention	0.902

To assess construct validity of our study, we examined the convergent and discriminate validity through a principal component analysis (PCA) with varimax rotation. We also use the Kaiser-Meyer-Olkin measure of sampling adequacy, calculated for each variable. This measure was used to assess the convergent construct validity of our study; it showed that the items of each construct are correlated since the convergent validity coefficients are all greater than or equal to 0.5 as recommended by Kaiser-Meyer-Olkin. Once convergent validity was verified, we proceeded to verify the discriminate validity. The analysis of the correlation matrix showed that all the items of the same construct are sufficiently correlated to one another, since the correlation coefficient is greater than 0.5; then, the correlation coefficients of inter items (that is to say between items of different constructs) are low. The correlation matrix thus shows good scores of discriminate validity.

In sum, the constructs selected for this study showed excellent reliability and convergent and discriminate validity. Thus, we could begin our analyses. Moreover, it was expected that the perceived risk variable be two-dimensional: the first dimension is the product risk, and the second is the social risk.

Discussion and Results
Description of Sample

Our sample consisted of 194 respondents of Tunisian nationality and residing in Tunisia. The sample was young, consisting of 126 individuals aged between 26 and 35 years, and 150 respondents aged between 18 and 35 years. Furthermore, 51% of all respondents are male. A near majority (47.4%) were executive. Almost 93% of them used the Internet daily, and 40.2% or 78 respondents had booked a tourism product online in the past five years.

Test of Hypotheses

To test the hypotheses, we conducted simple regression analysis.

Hypothesis H3 examines the positive relationship between the perceived ease of use of tourism websites and the perceived usefulness of these sites. Simple linear regression analysis confirms this hypothesis at a significance level of 0.000. So the relationship is significant ($\beta = 0.492$, t -value = 7.827, sig = 0.000); hence this hypothesis is accepted. Both Hypotheses H2 and H4 concern the influence of individual beliefs, namely people's attitude towards online booking. The influence of the two types of beliefs is significant on attitude. The impact of perceived ease of use for tourism websites is more important than the perceived usefulness

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of these same sites (for perceived usefulness: β = 0.031, t -value = 0.424, p < 0.05; for perceived ease of use: β = 0.084, t -value = 1.174 at the p <0.001). Hence, H2 corresponding to assumptions about the impact of perceived usefulness on attitude towards online booking, and H4 corresponding to the relationship between perceived ease of use and attitude, will not be rejected.

Perceived usefulness is expected to influence positively the intention of booking online as advanced in Hypothesis H1. This assumption is confirmed at a significance level of 0.000. Thus, the more individuals perceive tourism websites as useful, the stronger their intention to book tourism products online (β = 0.346, t -value = 5.110).

H6, which highlights the positive relationship between the attitude towards online booking and the intention to book online, is confirmed at p < 0.001. The more positive people's attitude towards online booking is, the greater their intention to book tourism products online (β = 0.076, t -value = 1.062). Hypothesis H5 elucidates the significant relationship that may exist between perceived ease of use of tourism websites and online booking on such sites. Analysis reveals that, the more individuals perceive tourism websites to be easy to use, the greater their intention to book online. Thus, the hypothesis is accepted, and the relationship between usability and the intention of booking online is a positive relationship at the threshold of 0.000 with β = 0.293 and t -value = 4.251.

Hypotheses H7 and H8 concern the relationship between trust in one hand, and perceived risk on the other hand on intention to book tourism products online. These relationships are assumed to be positive for trust and negative for perceived risk. In light of the results of the simple regression analysis, it appears that the positive relationship between trust and intention to book tourism products online is validated at a significance level of 0.000. This relationship has a very large β (β = 0.386, t -value = 5.790). Consequently, we can conclude that trust plays an important role in the decision-making process for online booking in the case of tourism products and in the particular Tunisian context. We then validate H7.

In contrast, the relationship between perceived risk and online booking is mixed. Indeed, the first factor of perceived risk, namely the risk of the product (lower quality, the product may not meet expectations, late delivery), negatively influences the intention of booking. Therefore, the more individuals perceive a risk in relation to their product, the greater their intention not to book online (β = - 0.231, t -value = - 3.276, p < 0.001). However, social risk admits no impact on the intention of booking online (β = 0.019, t -value = 0.266, the threshold p < 0.1). Thus, Hypothesis H8 is partially validated.

Figure 1 shows that based on the results of the regression analysis, our assumptions are accepted, with the exception of Hypothesis H8, which is partially validated.
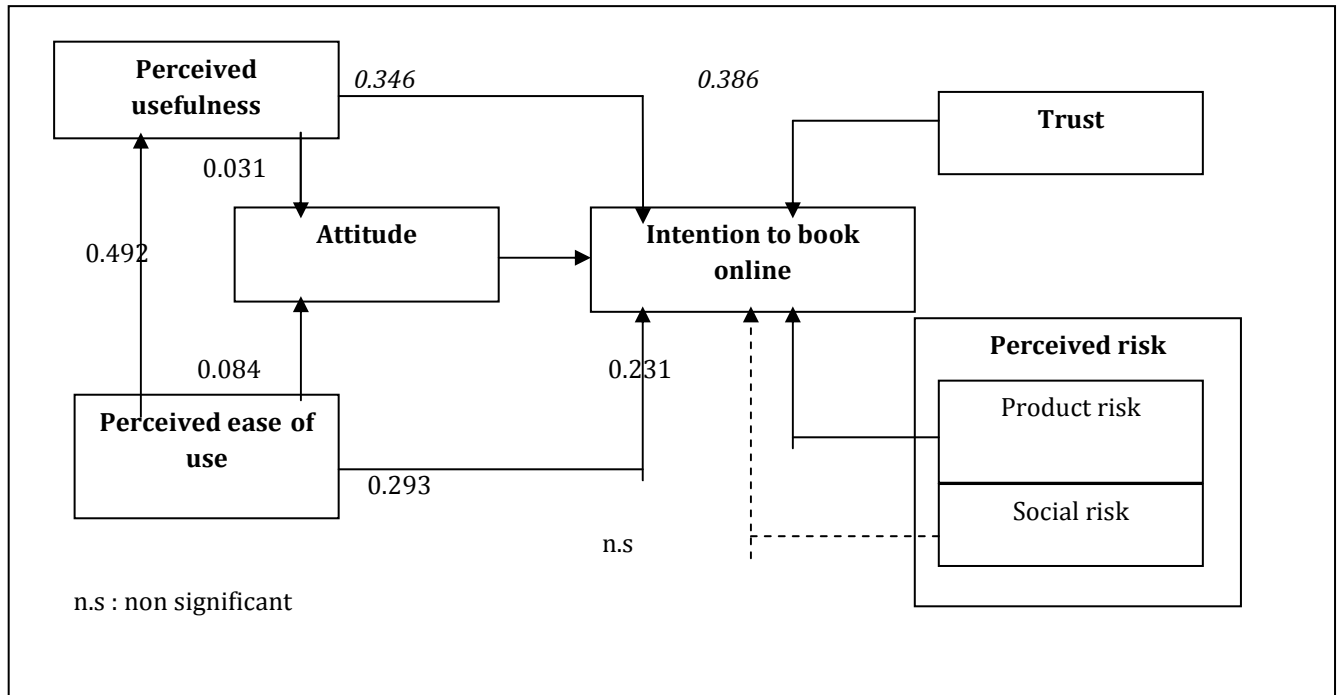
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Figure 1: Illustration of regression analysis's results

The impact of the trust and perceived risk on TAM model

To study the power of trust and perceived risk on TAM model, we first compared the TAM and extended TAM through multiple regressions. Thereafter, in a second phase, we compared the fit indices of these two models using structural equations.

Comparison of Models Through Multiple Regression

The TAM designed by Davis (1989) states that behavioral intention is influenced by attitude toward the behavior, which in turn is influenced by two beliefs, namely perceived usefulness and perceived ease of use of tourism websites (Davis, 1989).

Table 3: Results of regression analysis of TAM and extended TAM

Models*	R	R²	R² adjusted	Beta (β)	S.e. β	t-value	F / p
TAM	0.378	*0.143*	0.129				10.543 0.000
Perceived usefulness				0.256	0.074	0.267	3.460
Perceived ease of use				0.153	0.075	0.157	2.033
Attitude				0.047	0.057	0.055	0.816
Extended TAM	0.478	*0.228*	0.203				9.172 0.000
Perceived usefulness				0.176	0.075	0.18	2.342

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		0.118	0.079	0.122	1.615
Perceived ease of use		0.118	0.079	0.122	1.615
Attitude		0.083	0.056	0.097	1.461
Perceived risk					
Product risk		-0.105	0.073	-0.103	-1.440
Social risk		0.044	0.067	0.043	0.654
Trust		0.249	0.079	0.251	3.169

*dependent variable: intention to book tourism products online

The multiple regression analysis shows that the extended TAM, taking into account the variables of perceived risk and trust, helped explain a variance of 23% for online booking in comparison to the simple TAM that explained 14% of variance. Two conclusions can thus be drawn. First, the extension of the TAM improves its explanatory and/or predictive power. Second, these two variables explained 8.5% of the intention of booking online, which shows the importance of these two variables in booking tourism products online context. In short, the TAM shows perceived usefulness as the most dominant and influential variable, whereas the extended TAM shows trust as having the greatest weight in determining intention.

Comparison of Models through Structural Equations

Table 4 shows the adjustment indices obtained through the analysis of structural equations. We note that the fit of the extended TAM (including the variables of perceived risk and trust) seems to be better than that of the classic TAM. Thus, we show the importance of extending the TAM to better explain behavioral intention, if any, for booking tourism products online.

Table 4: Comparison of the fit of the two models

	X^2	Dl	X^2/dl	p	RMSEA	NFI	NNFI	CFI	IFI
TAM	442.114	83	5.102	0.000	0.168	0.704	0.682	0.742	0.746
Extended TAM	1148.146	317	3.622	0.000	0.117	0.614	0.618	0.680	0.687

Discussion

The perceived usefulness of websites for booking tourism products online is strongly influenced by ease of use of these websites. Significant impact of ease of use on usefulness matches the results of previous research (Matheison, 1991; Kim and Moon, 2001; Chen, Shang and Shen, 2005; Lin, 2007). The significant positive effect of this variable on perceived usefulness is thus confirmed, which is consistent with the results of Davis (1989). Cognitive constructs, namely the perceived usefulness and perceived ease of use of tourism websites, affect consumer attitudes towards the online mode of booking, which is coherent with the results of TAM and the results of previous research such as that conducted by Shih (2004) or Lin (2007). Indeed, the result of the regression analysis carried out indicates that usefulness and ease of use have a significant and positive influence on attitude towards online booking with a predominance of usability ($\beta = 0.084$; t -value = 1.174) compared to the usefulness ($\beta = 0.031$, t -value = 0.424).

Although 93% of respondents said they use the Internet daily, the variable ease of use seems to be influential for booking tourism products online. This finding corresponds to the results of previous research on the significant and direct relationship between perceived usefulness and behavioral intention. Lin (2007) found that perceived usefulness affects positively consumers' intention to buy online. Davis (1989) and Davis, Bagozzi and Warshaw (1989) also found that perceived usefulness is an important determinant of behavioral

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intention, and other findings indicated that the impact of perceived usefulness is greater than that of perceived ease of use on consumers' behavior (Davis, Bagozzi and Warshaw 1989; Chaun Chaun Lin and Lu, 2000).

Using Internet revolutionizes the way consumers seek information, communicate, and engage in a particular behavior, namely, in the present case, planning to book tourism products online. However, this method of booking has also engendered doubts and reluctance on the part of individuals who use the Internet for this purpose. The risk depends on the nature of the product, in this case the product is intangible, therefore the risk is high (Tan and Sutherland, 2004). Additionally, as the Internet offers little physical assistance (a human presence), buying online is considered to bring considerable risk. Verification of the product before purchase is not possible, and the security of personal and financial information is at risk (Dellaert, De Ruyter and there Monsuwe Perea, 2004). Our empirical results show that risk is a hindering factor for consumers to book tourism products online. This risk includes fear that the reserved product will not meet expectations, or that it is of a lower quality than what is shown on the tourism website, or even that it will be delivered late.

On Internet, consumers are often faced with information that is sometimes incomplete. Consequently, they will face a certain degree of risk and uncertainty associated with their intention to book tourism products online. Interestingly, the fact that online booking is not provided on websites does not affect the willingness of respondents to book online; in Tunisia, online payment for booking tourism products is virtually absent from tourism websites. Thus, we see that the social risk described by the fear of what others might think when booking online. Also, by the fear that tourism products booked online may not correspond with consumers' personal image or self-concept, does not show any significant impact for online booking. This negative relationship between perceived risk and behavioral intention has been identified as significant by many researchers. For example, Hwang, Lin and Wang (2010) found that

consumers were anxious and uncertain in their online engagement. Hence, there was a negative relationship between perceived risk and intention to buy online. In the same way, Ferrin, Kim and Rao (2008) showed that the perceived risk reduces behavioral intention.

Trustfulness has been repeatedly identified as one of the most redoubtable obstacles to individuals' engaging in electronic commerce, involving transactions in which their personal and financial information is made available to traders. The expansion of the e-commerce is thus dubious if there is no online trust (Emurian and Wang, 2005). Trust is also an important determinant for online booking. In this regard, the managers of tourism websites should do their best to reassure consumers by offering charters of security and confidentiality, interactions, certification by a third party, the possibility to pay at a physical rather than virtual point of sale, the transparency of information provided, and the quality of navigation. Sleler's reputation also plays an important role in trust's establishment. To increase online booking, these sites must also provide reliable information, and honor their promises and commitments to customers. Trust can also be perceived through memorization tools that provide information on what people have booked and how their expectations were met. Outcomes coincide with people's history results. In other words, a high degree of confidence positively affects the intention of booking on tourism websites. Chung, Kim and Lee (2010) have found that to be successful, tourism e-commerce services must be trustworthy.

Conclusion

The current study has demonstrated the importance of taking into account the variables of perceived risk and trust. In fact, by extending the TAM with these two variables, the explained variance for online booking has improved. The main conclusion reached is that, in e-tourism context, online booking is strongly influenced by consumer confidence in tourism websites, the websites' perceived usefulness, and the perceived risks. This study presents two contributions. First, this study dealt with the issue of online booking in Tunisian context. Second, the

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extended model has challenged the superiority of the TAM to explain behavioral intention. The mixed influence of independent variables on the intention of booking online in the context of e-tourism should now be investigated with a different sample (e.g. the selection of a population from another culture, or a population that is experienced or novice in the use of the Internet).

Moreover, our theoretical contribution also covers the field of investigation. For this purpose, in the context of this Tunisian study, there is very little research on consumer behavior online and more specifically on tourism websites. We then, suggest repeating this study to assess and subsequently determine the evolution of online behavior that the use of the Internet generalizes daily, particularly as access fees are down and those individuals whose age is between 26 and 35 years appear to be more willing to book tourism products online, as compared to individuals in other age groups.

From a managerial perspective, it seems necessary to focus on the various aspects and features of the tourism websites to increase consumers' use of the facilities offered. Thus, our study might enable practitioners and web designers to investigate a number of aspects of the interface proposed. Indeed, it is essential to provide consumers with a secure interface reducing the perceived risk of online booking. It might be worth including special areas on websites for users to share their experience of online travel purchases, offer their testimony, and reassure one another in order to increase consumers' intention to book online.

The lacks of security for the protection of users' privacy and companies that do not keep the promises made on their websites have severe negative effects on consumers. It is important to improve security and focus on the safety of online transactions. Thus, it seems essential to include charters to ensure confidence and reduce perceived risks and to provide information about the seller (employees, sales network, the owners, the privacy policy and security). Websites should also provide as much information as possible about the products for sale and possibly offer the option to pay at the place of consumption

of the reserved product. This might help to eliminate users' reluctance to pay online and their fear of credit card details piracy and personal data disclosure. It is also advisable to propose the possibility of a refund to consumers in case of cancellation of booking.

Our research study has a number of limitations. Our questionnaire was administered to Internet users who state using the Internet daily. This familiarity with the medium may have affected the relationship between perceived ease of use of tourism websites and their intention to book online. Therefore, we recommend repeating the study with a sample of less experienced users. Since 2012, the number of Internet users in the world has reached the figure of 2.4 billion. However, the 267 million users counted in Africa demonstrate that the presence of the Internet is still low on the continent, constituting about 7% of global users.

The study findings clearly show that respondents perceive a high level of risk to online booking, which is at an undeveloped stage in Tunisia; this perception negatively affects their intention to book tourism products online. Generalization of these results may not be accurate for other Asian and European populations, for example, for whom online purchasing is more widespread. Generalizing the results to other areas is also difficult and should be carried out with the maximum care. Another important limitation that will lead to future research perspectives is that, the vast majority of respondents were in the 18-35 years age group (60% of 26-35-year olds, and up to 72.5% for the 18-35-year olds). However, in the tourism industry, the majority of tourists are older. In our study, young people are more representative of Internet technology enthusiasts and online consumers of tourism products. The issue is that Tunisia is a country with a young population growth curve similar to that of other dynamic markets like India, or some countries in Asia and Oceania (Malaysia, Indonesia) and South America (Brazil) which confirms our results. Hence, further research could focus on a sample of consumers who are older than 35 and, if possible, who have already booked services or travel products online.

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